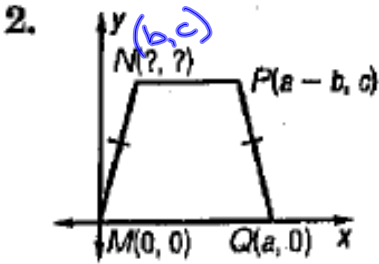
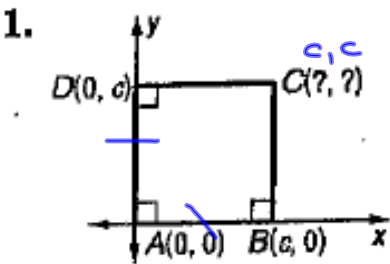
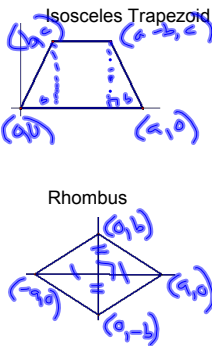
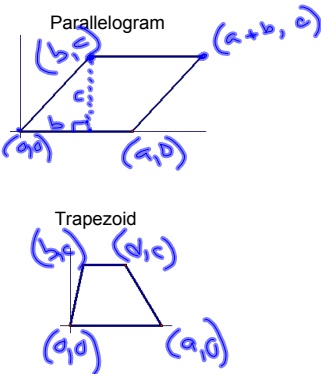
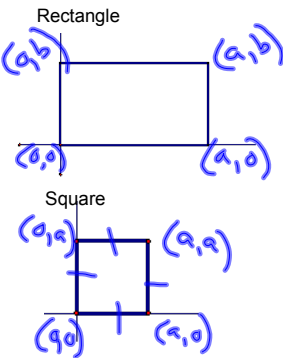
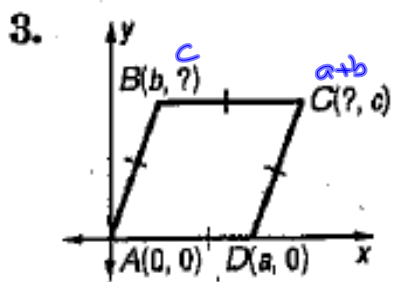
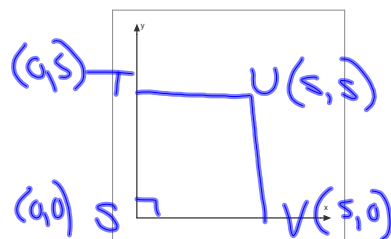


Coordinate Proof with Quadrilaterals

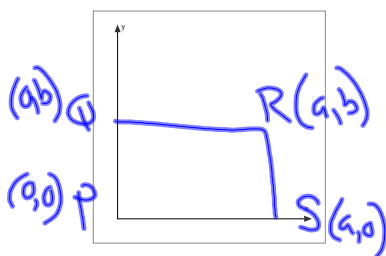




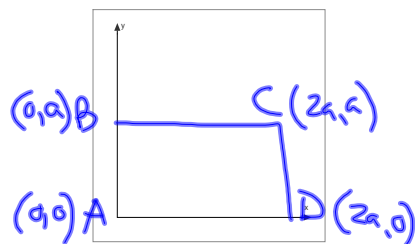
4. square  $STUV$  with side  $s$  units



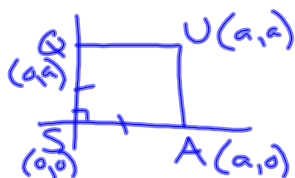
5. parallelogram  $PQRS$  with congruent diagonals



6. rectangle  $ABCD$  with length twice the width



Prove that the diagonals of a square are perpendicular



$$\overline{TA} \quad m = \frac{a-0}{0-a} = \frac{a}{-a} = -1$$

$$\overline{US} \quad m = \frac{a-0}{a-0} = \frac{a}{a} = 1$$

$\overline{TA} \perp \overline{US}$  b/c slopes are opp. recip